AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled).

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Currently Amended) A ~~The~~ process for secret transmission of a message by establishing a common cryptographic key for n subscribers using the Diffie-Hellman process, ~~as recited in claim 4, further~~ comprising:

assigning the n subscribers respective leaves of a binary-structured tree which has a root, n leaves, is of depth [$\log_2 n$] and has treenodes;

for each one of the n subscribers, generating a respective secret, the respective secret being assigned to the one of the n leaves to which the one of the n subscribers is assigned; and

establishing secrets consecutively in a direction of the root of the tree for all k nodes of the tree starting from the n leaves of the tree across an entire hierarchy of the tree, wherein two already known secrets are combined using the Diffie-Hellman process to form a new common secret, the new common secret being allocated to a common node so that a common cryptographic key for all n subscribers is allocated to a last one of tree nodes, the last one of the tree nodes being the root of the tree;

adding a new subscriber to the n subscribers of the tree so that there are n+1 subscribers of the tree, the adding step including:

adding two new leaves as successors to a selected one of the n leaves of the tree so that the new tree has n+1 leaves and is of depth [$\log_2(n+1)$];

assigning the one of the n subscribers to whom the selected one of the n leaves is assigned one of the two new leaves and assigning the new subscriber to another one of the two new leaves, the selected one of the n leaves becoming a common node for the two new leaves; and

starting from the new leaves in a direction of the root of the tree, establishing new secrets only in those of the tree nodes which lie within a framework of the tree on a path from the two new leaves to the root of the tree.

6. (Canceled).

7. (New) A method of transmitting a message to a location, comprising:

establishing a common cryptographic key for n subscribers using Diffie-Hellman process;

encrypting the message with the common cryptographic key;

transmitting the encrypted message to the location,

wherein, the establishing the common cryptographic key includes:

assigning the n subscribers respective leaves of a binary-structured tree which has a root, n leaves, is of depth $[\log_2 n]$ and has treenodes;

for each one of the n subscribers, generating a respective secret, the respective secret being assigned to the one of the n leaves to which the one of the n subscribers is assigned; and

establishing secrets consecutively in a direction of the root of the tree for all k nodes of the tree starting from the n leaves of the tree across an entire hierarchy of the tree, wherein two already known secrets are combined using the Diffie-Hellman process to form a new common secret, the new common secret being allocated to a common node so that a common cryptographic key for all n subscribers is allocated to a last one of tree nodes, the last one of the tree nodes being the root of the tree;

adding a new subscriber to the n subscribers of the tree so that there are n+1 subscribers of the tree, the adding step including:

adding two new leaves as successors to a selected one of the n leaves of the tree so that the new tree has n+1 leaves and is of depth $[\log_2(n+1)]$;

assigning the one of the n subscribers to whom the selected one of the n leaves is assigned one of the two new leaves and assigning the new subscriber to another one of the two new leaves, the selected one of the n leaves becoming a common node for the two new leaves; and

starting from the new leaves in a direction of the root of the tree, establishing new secrets only in those of the tree nodes which lie within a framework of the tree on a path from the two new leaves to the root of the tree.

8. (New) The method as recited in claim 7, further comprising:

excluding a selected one of the n subscribers from the tree, the excluding steps including:

removing a first one of the n leaves of the tree to which the selected one of the n subscribers is assigned;

removing a second one of the n leaves, the second one of the n leaves sharing a common node with the first one of the n leaves, the common node with the first one of the n leaves becoming a new leaf assigned to the one of the n subscribers to which the second one of the n leaves is assigned; and

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starting from the new leaf of the tree in a direction of the root of the tree, establishing new secrets only in those of the tree nodes which lie within a framework of the tree on a path from the new leaf to the tree root.